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February 23, 2007

Via Electronic Filing

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, DC 20554

Re: WT Docket Nos. 96-86, 06-150 and 06-169 and PS Docket No. 06-229
Ex Parte Notice

Dear Ms. Dortch:

On February 22, 2007, Andrew Rein and the undersigned, on behalf of Access Spectrum, LLC, and Marshall Pagon, Cheryl Crate and Kathleen Wallman, on behalf of Pegasus Communications Corporation, met with Linda Chang, Peter Corea, Paul D'Ari, David Hu, Tim Maguire, Cathleen Massey and Paul Moon of the Wireless Telecommunications Bureau to: (1) highlight the shortcomings of the technical white paper submitted by Verizon Wireless on February 15, 2007 in WT Docket No. 06-169;[1] (2) explain that the 6+6 public safety band plan[2] is not a viable alternative to the Broadband Optimization Plan ("BOP") and has not been endorsed by any public safety entity due to its failure to fulfill Public Safety's preconditions to band plan changes; (3) discuss the Commission's authority to allocate a portion of the 700 MHz B Block to public safety use; and (4) discuss conforming existing licenses to the BOP consistent with the comments filed by Access Spectrum and Pegasus in WT Docket No. 06-169.[3]

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1 *See* Letter to Marlene H. Dortch, Secretary, Federal Communications Commission, from Donald C. Brittingham, Director – Spectrum Policy, Verizon Wireless, WT Docket No. 06-169 (Feb. 15, 2007).

2 *See* Letter to Marlene H. Dortch, Secretary, Federal Communications Commission, from Michael McMenamin, Global Government & Public Affairs, Alcatel-Lucent, WT Docket Nos. 96-86 and 06-169 (Jan. 26, 2007).

3 *Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Requirements*

Also on February 22, 2007, Andrew Rein and the undersigned, on behalf of Access Spectrum, LLC, and Marshall Pagon and Cheryl Crate, on behalf of Pegasus Communications Corporation, met with Jeffrey Cohen of the Public Safety & Homeland Security Bureau and Evan Kwerel and John Williams of the Office of Strategic Planning and Policy Analysis to discuss matters 1 through 3 referenced above.

The discussion was consistent with the attached presentation and with Access Spectrum and Pegasus' previous written submissions in this docket. Access Spectrum and Pegasus explained that the Commission has fulfilled the requirements of Section 337 with respect to the Upper 700 MHz A and B Blocks.[4] Because a portion of the presently-commercial B Block must be allocated to public safety use to provide Public Safety with effective and affordable wireless broadband capabilities, only the reading of Section 337 described in the December 12, 2006 *ex parte* letter gives effect to Congress' intentions with respect to both section 337 and the prime statutory directive to manage the spectrum in a manner that promotes the safety of life and property.[5]

Pursuant to the Commission's rules, this letter is being submitted for inclusion in the public record in the above-referenced proceedings.

Sincerely,

/s/ Ruth Milkman
Ruth Milkman

Attachment

cc: Linda Chang
Jeffrey Cohen
Peter Corea
Paul D'Ari
David Hu
Evan Kwerel
Tim Maguire
Cathleen Massey
Paul Moon
John Williams

Through the Year 2010, Comments of Access Spectrum, LLC and Pegasus Communications Corporation, WT Docket Nos. 06-169 and 96-86 at 19 (Oct. 23, 2006).

4 *See* Letter to Marlene H. Dortch, Secretary, Federal Communications Commission, from Ruth Milkman on behalf of Access Spectrum, LLC and Kathleen Wallman on behalf of Pegasus Communications Corporation, WT Docket Nos. 96-86, 06-150 and 06-169 (Dec. 12, 2006) ("December 12, 2006 *ex parte* letter").

5 47 U.S.C. § 151.

Optimizing the Upper 700 MHz Band

February 2007

The Broadband Optimization Plan ("BOP")

- The public safety community has endorsed the Broadband Optimization Plan ("BOP") and both the First and Second Technical Working Group ("TWG") Reports

- Public Safety has specifically excluded consideration of any alternatives (e.g., "6+6 Plan") that do not solve the issues related to the Canadian border and the re-programming of existing 700 MHz systems
  - *"The further NPRM must clearly state the concerns that public safety has expressed regarding shifts in the narrowband channel allocation, and make clear that solutions to those problems are necessary before the Commission adopts a channel plan that shifts the narrowband allocation… the two principal concerns that have been expressed are the cost of re-programming 700/800 MHz radios and the blocking of narrowband channel use in Canadian border states." (Letter from APCO, IACP, IAFC, MCCA, MCSA and NSA – July 31, 2006"*

- Some of the country's leading technical experts from the public safety and commercial communities have been studying the implications of the Broadband Optimization Plan for nine months
  - *"The TWG concluded that there were no inherent technical impediments to implementing the BOP." (Second TWG Report pg. 2)*

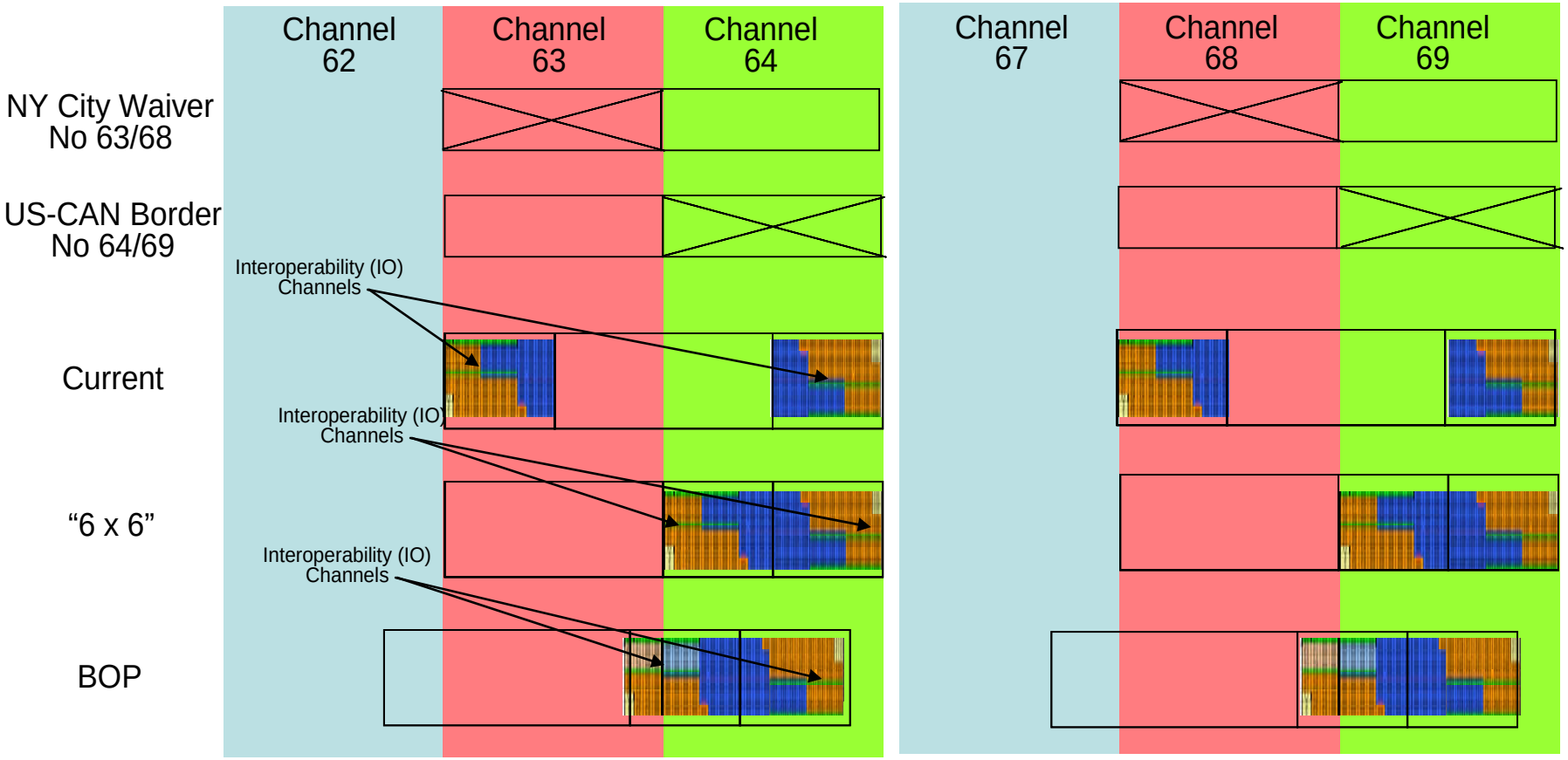
The “6+6 Plan”

- VZW is dangerously wrong when it suggests that simply consolidating public safety’s narrowband allocation (Alcatel-Lucent’s “6+6” proposal) would be a viable alternative to the BOP:
  - The 6+6 plan fails to address to technical issues that were explicit prerequisites for public safety’s consideration of any re-configuration of its spectrum allocation
    - Issues related to the Canadian border would not be solved and would actually create significant problems for public safety entities in border regions, especially New York State
    - Equipment re-programming and spectrum planning database issues would not be solved
  - The 6+6 plan has not undergone any technical review whatsoever
  - No single public safety entity has supported the 6+6 plan

- In its effort to suggest that public safety supports this contention, VZW cites to a December 6th letter from NPSTC to the FCC; however, closer examination reveals that the letter in question specifically refers to NPSTC’s endorsement of the First TWG Report which affirms the fact that the BOP solves the very issues the 6+6 plan fails to address

- By contrast, the BOP enjoys the broad support of the public safety community, addresses the Canadian border, re-programming equipment and spectrum planning database issues and is far superior to the status quo

The Canadian Border Issue



- Constraints:
  - Public Safety Band Plan must satisfy the need for fixed interoperability channels with some available under all circumstances
  - Canada has no official plan to transition channel 64 & 69
  - NY City to use channels 64 & 69

Summary

- Simply put, the Broadband Optimization Plan ("BOP"):
  - Results in an additional 3 MHz of usable broadband spectrum for BOTH public safety and commercial use and creates a 1 MHz "talk-around" channel that public safety can use in emergency situations
  - Significantly reduces the potential for harmful interference to BOTH public safety AND neighboring commercial systems in part by requiring the use of guard bands and buffer spaces within public safety's allocation
  - Makes the Upper 700 MHz band more attractive for 4G technologies, for new entrants and for public-private partnerships
  - Solves the technical concerns that Public Safety required must be addressed before considering any movement of the narrowband channels
  - Is good for public safety, good for future commercial licensees and good public policy

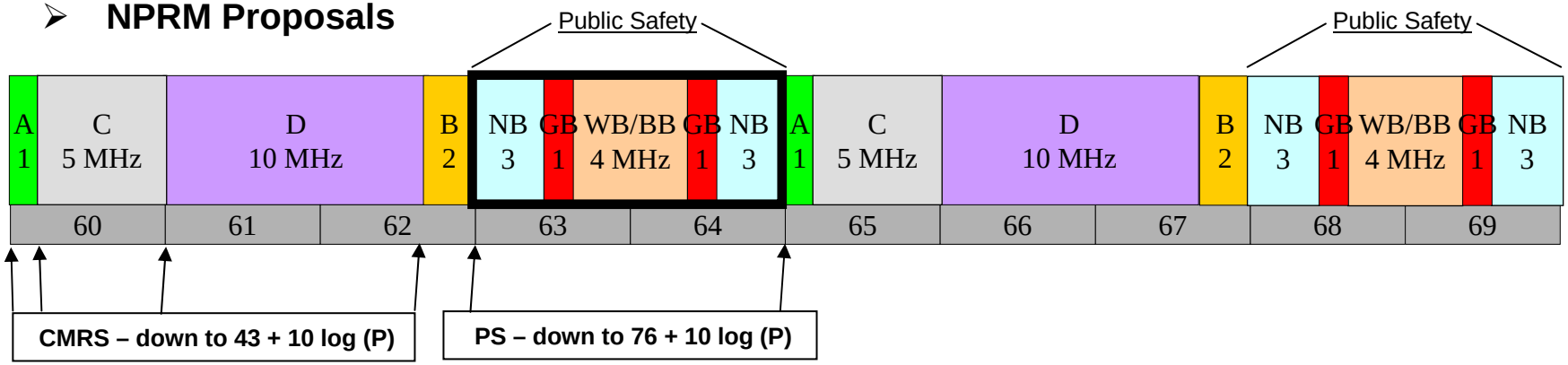
- The FCC should immediately adopt the BOP:
  - If implemented, it will create 33 MHz of commercial broadband spectrum, which results in many more alternatives with respect to the commercial allocation that promote broadband competition
  - Adopting the Broadband Optimization Plan does not eliminate any alternatives for the commercial allocation, including the status quo

- Prompt action on the Broadband Optimization Plan and a full consideration of the commercial alternatives that build upon the BOP will not delay the Congressionally-mandated auction

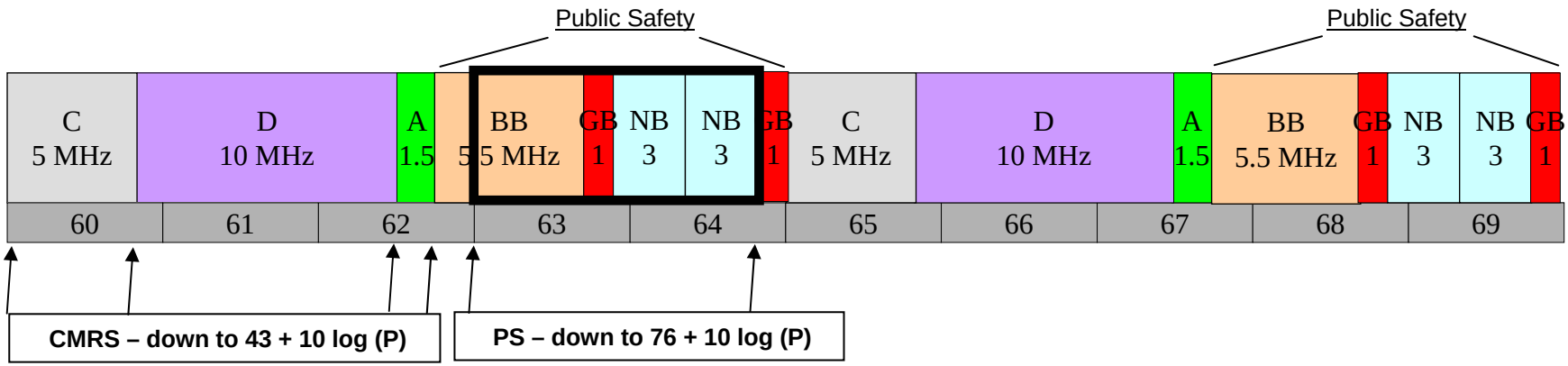
Appendix

The Broadband Optimization Plan – OOBE

- **NPRM Proposals**



- **Re-configuring the public safety allocation – the Broadband Optimization Plan**



The 776 MHz public safety/commercial interface

- Public safety interference conditions are improved
  - Under the status quo:
    - Public safety directly adjacent to commercial operations and 1 MHz away from commercial broadband operations – OOBE protection = down to 76 + 10 log (P) at 776 MHz
  - Under the BOP:
    - Public safety 1 MHz away from commercial operations – OOBE protection = down to 76 + 10 log (P) at 775 MHz

- Commercial interference conditions are at the very least maintained if not improved
  - Under the status quo:
    - Commercial broadband operations directly adjacent to commercial A Block and 1 MHz away from the sensitive public safety narrowband operations
  - Under the BOP:
    - Commercial operations 1 MHz away from the sensitive public safety narrowband operations
    - The BOP explicitly contains suggestion that the FCC make clear that public safety should not expect any interference protection in the 1 MHz guard band at 775-776 MHz

- Public safety benefits from being able to use the spectrum at 805-806 MHz for unpaired, simplex communications (e.g., talk-around in emergency situations)

The 762.5/792.5 MHz public safety/commercial interface

- Public safety interference conditions are improved
  - Under the status quo:
    - Public safety's narrowband operations are directly adjacent to commercial operations and 2 MHz away from commercial broadband operations – OOBE protection = down to 76 + 10 log (P) at 764 MHz
    - Public safety's narrowband operations, which have very sensitive receivers, face a significant threat from intermodulation interference (IMI) from the commercial B,D Blocks
  - Under the BOP:
    - Public safety's narrowband operations are 6.5 MHz away from commercial operations and are separated from public safety's broadband operations by a 1 MHz internal guard band
    - Public safety's narrowband operations receive much greater protection from IMI
      - In order to experience IMI, public safety's own broadband operations would have to contribute to it, something that is within public safety's control to ameliorate
      - Consolidating the narrowband permits the use of tighter filters and better receivers
    - Public safety's broadband/wideband operations continue to receive full public safety protection at 764/794 MHz; however, it should be noted that there are a few situations where IMI may be slightly worse for public safety's wideband/broadband operations
      - *"The TWG concluded that the other technical advantages of the BOP far outweighed any disadvantage associated with this slight potential increase in interference." (Second TWG Report pg. 2)*

The 762.5/792.5 MHz public safety/commercial interface (cont'd)

- Under the BOP, public safety will receive traditional CMRS OOBE interference protection in the new spectrum added to their allocation (762.5-764/792.5-794 MHz)
  - *"The BOP would apply commercial cellular OOBE rules inside the lower 1.5 MHz paired of public safety spectrum (762.5 – 764 and 792.5 – 794 MHz), effectively placing 1.5 MHz separation between commercial broadband and any non-cellular public safety operations." (Second TWG Report pg. 5)*
    - Within this buffer, public safety's systems will need to be designed and operated under these conditions which include the acceptance of interference within commercial OOBE limits as well as interference that results from the deployment of incompatible commercial broadband systems
  - *"The TWG concluded that public safety wideband and narrowband operations should be permitted only in the spectrum from 764 - 775 MHz and 794 - 805 MHz" (Second TWG Report pg. 4)*

- The BOP harmonizes the technical rules for the entire commercial allocation
  - *"The TWG recognizes that a central feature of the BOP is the elimination of separately regulated commercial guard bands and the adoption of commercial rules from the existing C&D Blocks for the new A Block" (Second TWG Report pg. 2)*

The 762.5/792.5 MHz public safety/commercial interface (cont'd)

- Commercial interference conditions are at the very least maintained if not improved
  - Under the status quo:
    - D Block commercial broadband operations must meet the public safety "down to 76 + 10 log (P)" OOBE limit at 764/794 MHz and are 2 MHz away from public safety's narrowband
    - Commercial broadband operations will likely cause severe IMI to public safety's narrowband operations
  - Under the BOP:
    - D Block commercial broadband operations must meet the more strict public safety OOBE limit at 764/794 MHz and are 3 MHz away from public safety's strictly protected wideband/broadband and 1.5 MHz away from public safety's CMRS-protected broadband
    - A Block commercial broadband operations, since they are operating under the C&D Block rules, must meet the more strict public safety OOBE limit at 764/794 MHz and are 1.5 MHz away from public safety's strictly protected wideband/broadband and directly adjacent to public safety's CMRS-protected broadband

- Allowing for full commercial broadband use directly adjacent to public safety's commercial-like broadband in critical for the facilitation of public-private partnerships
  - The opportunity for public-private partnerships provide additional incentive for new entrants to participate in the auction, which is of course in the interests of public safety and the country

The 746 MHz commercial/commercial interface

- VZW is wrong when it states, without citation, that the FCC established a lower A Block at 746-747 MHz to separate the Upper and Lower 700 MHz bands
  - The FCC's order states that in order to protect the immediately adjoining public safety licensees from harmful interference, the FCC placed a 1 MHz guard band at 776-777 MHz and placed the other 1 MHz segment of the A Block at 746-747 MHz in order to allow for a paired block

- VZW contends that a series of Motorola filings (circa 1999) support its contention; however, closer examination reveals that Motorola was concerned with high-powered television stations that are not subject to the rules that exist for today's C Block licensees
  - The hard date for the DTV transition renders this concern moot

- VZW has never before commented on this issue in the record
  - CTIA raised this question on October 23, 2006 and Access Spectrum and Pegasus comprehensively dealt with the issue in the reply comments on November 13, 2006
  - In short, the current rules applicable to the Upper and Lower 700 MHz commercial blocks provide more than adequate protection against interference
    - The FCC envisioned both high-site mobile broadcast and low-site commercial broadband systems and developed appropriate rules
    - More specifically, the Lower 700 MHz blocks have PFD requirement that restrict the power levels <u>on the ground</u>
    - This fact addresses VZW's concerns about the differences in <u>transmitter</u> ERP